

REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicants respectfully submit that the pending claims are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicants will now address each of the issues raised in the outstanding Office Action. Before doing so, the undersigned would like to thank Examiner Murphy for courtesies extended during a telephone interview on July 12, 2006 (referred to as "the telephone interview"). During the telephone interview, the propriety of the rejection under 35 U.S.C. § 103 against claims 2, 11 and 35 was discussed. The substance of the discussion during the telephone interview is summarized in the arguments below.

Rejections under 35 U.S.C. § 102

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,747,971 ("the Hughes patent"). Since claim 1 has been canceled, this ground of rejection is rendered moot.

Rejections under 35 U.S.C. § 103

Claims 2-5, 7-14, 16 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Hughes patent in view of U.S. Patent No. 6,285,679 ("the Dally patent"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner concedes that the Hughes patent does not teach an arbiter for each of the outgoing links of the input module. In an attempt to compensate for this admitted deficiency, the Examiner relies on the Dally patent. In particular, the Examiner contends that the Dally patent teaches an arbiter for each of the outgoing links of the input module, citing Figure 9, element 68. The Examiner then concludes that it would have been obvious to one skilled in the art to modify the Hughes method by incorporating arbiters at each outgoing link, *so as to provide a fair arbitration process* for access to requested output links. (See Paper No. 07072005, page 4.) The applicants respectfully disagree.

One skilled in the art would not have been motivated to combine the Hughes and Dally patents as proposed by the Examiner. There is no suggestion in the art to make the proposed combination. As just stated above, the Examiner concludes that it would have been obvious to one skilled in the art to modify the Hughes method by incorporating arbiters at each outgoing link, *so as to provide a fair arbitration process* for access to requested output links. *However, the Hughes method is already fair.* For example, the Hughes patent states:

*For fairness the scheduler
maintains a number of pointers*

(not shown). The pointers help determine: 1) whether a multicast request is to be preferred or not (the Multicast/Unicast Grant Preference Pointer); 2) which multicast request to select if more than one exists (the Multicast Grant Round Robin Pointer); and 3) which unicast request to select if more than one exists (the Unicast Grant Round Robin Pointer). [Emphasis added.]

Column 18, lines 3-10. The Hughes patent further states:

The Multicast Grant Round Robin Pointer and the Unicast Grant Round Robin Pointers are used to guarantee 100% fairness to all ingress ports. That is, whereas the Multicast/Unicast Grant Reference Pointer determines contention between multicast and unicast cells, the round robin pointers determine contention among ingress ports. The preference ranking scheme consists of a list of n numbers listed sequentially. The pointer rolls the preference ranking scheme one unit each time the preference ranking is used. If the output control port has to choose between two requests from two or more different ingress queues it will select the ingress port listed highest in the preference ranking scheme. After the selection is made, the preference ranking is shifted one unit. Thus the ranking continually wraps around which, over time, guarantees 100% fairness to all ingress ports. In one embodiment there is one multicast Grant Round Robin Pointer per switch plane and one Unicast Grant Round Robin Pointer per output control port. Also, the input control port, if it receives more than one grant may also use the reference and round robin pointers to resolve multiple grant contention after it

first determines which grants are highest priority according to the currently active preference ranking scheme (as discussed in regards to FIG. 10). [Emphasis added.]

Column 18, lines 32-54.

Since the method described in the Hughes patent is already fair (100% fairness can be guaranteed), one skilled in the art would not have been motivated to modify it for purposes of fairness. Furthermore, since the Dally patent describes a very different technique and architecture from the Hughes patent, one skilled in the art would not have been motivated to apply a component of the Dally patent to the Hughes patent since doing so would offer no benefit with respect to fairness, and would run the very high risk of adversely affecting the operation of the Hughes patent.

Since one skilled in the art would not have been motivated to combine the Hughes and Dally patents, claims 2-5, 7-14, 16 and 35 are not rendered obvious by these patents for at least this reason. During the telephone interview, Examiner Murphy indicated that she appreciated this position, but would need to discuss this issue with her supervisor. Subsequently, Examiner Murphy indicated that she would need a formal response for reconsideration.

Claims 2 and 35 have been rewritten in independent form to include the subject matter of canceled base claim 1. Claim 8 has been rewritten to depend from claim 2.

Claims 6 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Hughes patent in view of U.S. Patent, in view of U.S. Patent No. 6,154,459 ("the

Wicklund patent"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Examiner cites the Wicklund patent as teaching moving a pointer through groups of VOQs. Even assuming, arguendo, that this is true, this purported teaching of the Wicklund patent fails to compensate for the deficiencies of the Hughes and Dally patents with respect to claims 2, 5, 11 and 14 discussed above. Dependent claim 6 includes the features of claims 2 and 5, while dependent claim 15 includes the features of claims 11 and 14. Therefore, claims 6 and 15 are not rendered obvious by the Hughes, Dally and Wicklund patents for at least this reason.

Entry of Amendments

Since the claim amendments merely cancel claim 1, rewrite claims 2 and 35 independent form, and change the dependency of claim 8, they raise no new issues and should be entered.

Indeed, for the reasons set forth above, the claims are now clearly in condition for allowance.

Conclusion

In view of the foregoing amendments and remarks, the applicants respectfully submit that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Respectfully submitted,

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CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

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